

LESSON 5: Promoting Proper Management of Household Hazardous Waste

LESSON'S CONCEPT

Education and publicity can help encourage people to manage properly their household hazardous waste.

PURPOSE

Students demonstrate what they have learned about the proper management of household hazardous waste by taking personal action. Through various projects students encourage others to manage properly their household hazardous waste.

OVERVIEW

Students select one of the following projects to complete to teach others what they have learned about household hazardous waste:

- Design posters to inform students and other community members that the only way that household hazardous wastes can be managed properly is to take them to a household hazardous waste collection facility or event in their community.
- Compile a list of facts about used motor oil or other household hazardous waste and design a community display.
- Make hanging signs for door handles with reminders to recycle used oil, used oil filters, used antifreeze, and paint.
- Make a coloring book for younger students on the importance of avoiding household hazardous products or of managing waste properly.
- Write a letter to parents or guardians to inform them about household hazardous waste.
- Write a jingle about the proper management of household hazardous waste.

CORRELATIONS TO CALIFORNIA'S CONTENT STANDARDS AND TO BENCHMARKS FOR SCIENCE LITERACY

Students complete projects to teach others about the proper management of household hazardous waste. They present these to the

class. Some students compile a list of facts about used motor oil or other household hazardous waste and make a coloring book for younger students.

- "People can learn from each other by telling and listening, showing and watching, and imitating what others do." (*Benchmarks for Science Literacy*, page 140)
- Students "choose the form of writing (e.g., personal letter, letter to the editor, review, poem, report, narrative) that best suits the intended purpose." (*English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve*, page 37)
- "Students deliver brief recitations and oral presentations about familiar experiences or interests that are organized around a coherent thesis statement." (*English–Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve*, page 27)

SCIENTIFIC THINKING PROCESSES

observing, communicating, comparing

TIME

10 minutes to prepare for the lesson; 45–120 minutes to implement the lesson (depending on how long students take to complete their projects; some can be completed as a homework assignment)

VOCABULARY

(Select additional words that students are curious about in this lesson.)

PREPARATION

- 1. Read the “Background Information for the Teacher” on page 568.
- 2. If you have obtained information packets concerning the disposal of household hazardous waste in your community, prepare copies for students to take home.

MATERIALS

- Magazines and newspapers
- Information from local sources about the proper management of used motor oil and other household hazardous waste
- Completed copy of “Household Hazardous Waste Management Options” from Lesson 4 (pages 561 and 562).
- Students may need specific materials to complete their projects.

PRE-ACTIVITY QUESTIONS

- A. Ask students:
 - What can we do to encourage others to manage properly their household hazardous waste?
 - What is an advertisement? *A news article, TV commercial, notice in a newspaper, store display; anything that brings something to one's attention or notifies someone about an object, event, or idea.*
- B. Show examples and ask students to share with the class some advertisements from magazines or newspapers. Discuss:
 - What product or company is being promoted?
 - What audience is being targeted in particular; e.g., young people, women, wealthy people?
- C. What are slogans? *Catchy phrases.* What slogans are being used in the advertisements? Ask students to think of some well-known slogans that they may have heard on television (e.g., “It’s the real thing.”).
 - What do you remember about them? *The words and what they represent.*
 - What makes them so powerful? *They are phrases that are easy to remember; some are funny.*
- D. Discuss some jingles (songs) that students have heard that promote an idea or product.

Homework Assignment: Assign students to watch television, listen to the radio, or read

advertisements and to report back to the class a slogan or jingle used in one advertisement.

PROCEDURE

- A. Ask students to share their homework assignments.
- B. Tell students that they will be selecting a project to teach others about the proper management of household hazardous waste. They can use some advertisement techniques that they have observed to help them with their projects. Discuss some techniques.
- C. Ask students for important ideas that they have learned about household hazardous waste that they could use in their projects.
 - As a class, develop a bank of key words and phrases that address household hazardous waste. Students should focus on what people should know about household hazardous waste and why.
 - Post the class list of “Items That Should Go to a Household Hazardous Waste Collection Facility” that was developed in Lesson 4. Tell students that they can use this list in some of their projects to let people know what type of household hazardous waste is collected in their community.
 - As a class, consider designing a rubric or make a list of criteria for the projects, so that students will know how their work will be assessed. See Unit 2, Lesson 6 for an example of a rubric.
- D. Tell students that they can work individually, in pairs, or in groups, or decide to do a project as a class. Provide any handouts of household hazardous waste that you received from local agencies. Share with students the following ideas for projects (they can also design a project of their own):
 1. **Poster.** A poster should inform students and other community members of the importance of taking household hazardous wastes to the household hazardous waste collection facility. A poster can be designed to show ways that household hazardous wastes should never be disposed of and include the reasons why. Or a poster

could contain a list those household hazardous wastes that are accepted at the local household hazardous waste collection facility. Or a poster could include the proper way to manage used motor oil.

2. **Display.** A display may have examples of handouts from the local household hazardous waste collection facility and include directions to community members on how to manage safely their household hazardous wastes. A display can also have facts about used motor oil and other household hazardous waste. This display can be put up in various areas in the community.

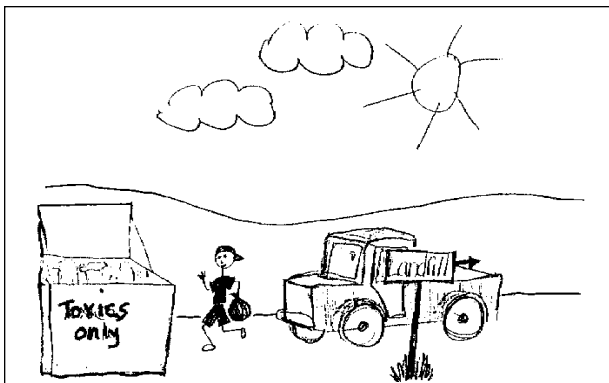
3. **Door Handle Sign.**

Door handle signs can be cut out of cardboard and used as reminders on door handles. Students might want to develop a slogan or directions for the cardboard door handle signs.

For example, "Don't spoil the soil with that oil!" or "Recycle your used oil: protect our waters." They can add illustrations.



4. **Coloring Book.** A coloring book can be designed for younger students to teach them the importance of avoiding household hazardous products and waste. This could be a class effort. If the class decides to do a coloring book, each student can contribute to the illustrations or to the descriptions under the illustrations. Encourage students to keep it simple. See the example on the next page.

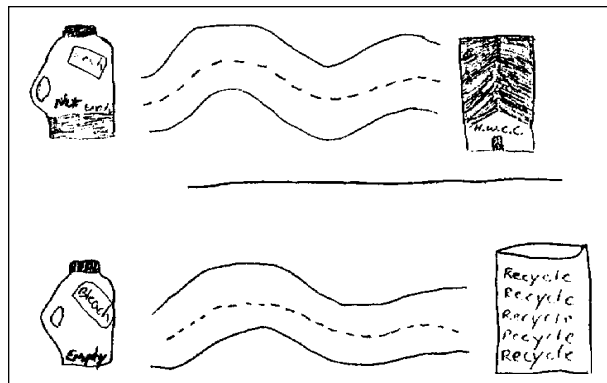


5. **Writing Letters to Parents.** A letter could be written to parents about recycling used motor oil and the proper management of other household hazardous wastes. Two examples of letters are provided in this lesson. One provides information about managing household hazardous waste (page 569), and the other describes facts about used motor oil (page 570).

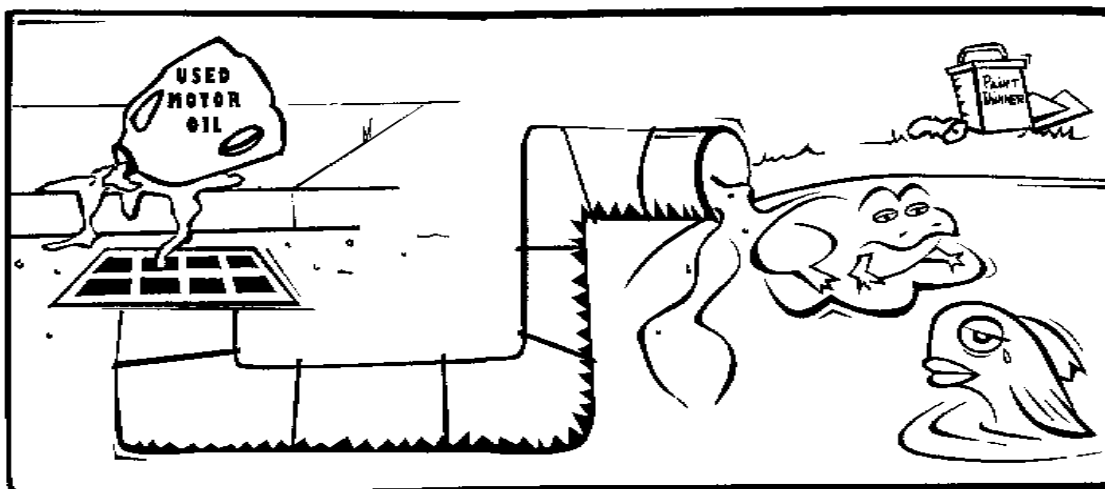
6. **Jingle.** A jingle or a song based on a well-known song can be written to promote the proper management of household hazardous waste.

7. **Other Projects**

- Students could create a map that shows the locations of household hazardous waste disposal sites in their community. If there is not a household hazardous waste collection site in your community, students might want to organize a letter-writing campaign to community officials to encourage the development of a household hazardous waste collection site.
- Students could write news articles about the importance of properly managing household hazardous wastes. These can be submitted to the school's newspaper or to a local paper; or students could create their own newsletter to promote community awareness of household hazardous waste. They can advertise locations that accept used motor oil and other household hazardous wastes. They can also describe events where people will volunteer to paint buildings in their community using donated unused house paint.



Submitted Janet Cohen, sixth-grade teacher, Gold Trail Elementary School, Gold Trail Union School District.



Don't Dump Down Storm Drain

Dangerous To Animals

- D. Allow students some class time to work on their projects. Some students might need to complete theirs at home.
- E. Encourage students to share their projects.

DISCUSSION/QUESTIONS

- A. How do slogans, jingles, signs, and displays help to advertise how to manage properly household hazardous waste?
- B. What do you think people will notice about the posters, signs, displays, or jingles that you have designed?

APPLICATION

Homework Assignment: Ask students to write a pledge to do one thing to promote the importance of the proper management of household hazardous waste. They should begin by writing, "I pledge to . . ."

Encourage students to share their pledges.

BACKGROUND INFORMATION FOR THE TEACHER

In this lesson students do projects to teach others about what they have learned about household hazardous waste. If you received information from local sources about the proper management of household hazardous waste, provide these for students. Allow students to obtain additional information about household hazardous waste by visiting Websites, such as the California Integrated Waste Management Board's website:

www.ciwmb.ca.gov. You might also make copies of some of the pages on household hazardous waste which you completed in Lesson 4 for students to use in their projects. Additional information on household hazardous waste is provided in "Appendix B-IV, Household Hazardous Waste" of this guide.

Letter to Parent or Guardian Concerning Household Hazardous Waste

(Use school's letterhead.)

Dear Parent or Guardian:

Please read the following information with your child:

Our class is studying household hazardous products. Since safety is our highest priority at school, we thought you might want to know what your child is learning about household hazardous products and waste. The following products can be hazardous:

- Automotive waste products (including used motor oil and used motor oil filters)
- Batteries
- Fuels
- Paints (including wood preservatives and paint solvents)
- Pesticides

Household hazardous products that are no longer wanted by a family are called household hazardous wastes. To protect people and water supplies and to keep our environment from becoming polluted, your community provides a household hazardous waste collection site where you can take your household hazardous wastes. Here are some warnings regarding any wastes you may have:

- Containers holding any leftover household hazardous products should never be placed in the trash. The products might injure garbage haulers and landfill workers and could pollute the environment.
- The contents should never be poured down the drain, on the ground, or into a storm drain, because the household hazardous wastes could pollute water and soil.

Here is what you should do to reduce the amount of your household hazardous waste:

- Buy only what you need and will be able to use.
- Use the product completely or give it to someone who could use it safely.

If you find it necessary to dispose of any unused hazardous products, take them to a household hazardous waste collection site. This is located at _____

The telephone number to call for information about the proper management of household hazardous waste in our community is: _____

Thank you,

Letter to Parent or Guardian Concerning Used Motor Oil

(Use school's letterhead.)

Dear Parent or Guardian:

Please read the following information with your child:

Our class is studying about the proper recycling of used motor oil. Students have learned that:

- Approximately 20 million gallons of used motor oil are disposed of improperly by people who change their own motor oil in California each year.
- It is illegal to pour used motor oil onto the ground, into storm drains, and into trash cans, because the used motor oil can pollute our soil and groundwater.
- One quart of used motor oil can affect the smell and taste of more than 250,000 gallons of fresh drinking water. That is enough water to sustain a family of four for one year.
- Used motor oil can be recycled and used over and over again.

To protect people and water supplies and to keep our environment from becoming polluted, businesses in your community provide used motor oil collection sites. These are located at:

The telephone number to call for information about the proper recycling of used motor oil and oil filters in our community is: _____

The household hazardous waste collection site is located at:

The telephone number to call for information about the proper management of household hazardous waste in our community is: _____

Thank you,